

**PROBLEM-SOLVING SKILL****R 4-8****Exact Answer or Estimate?****Estimates**

Phrases such as “will there be enough” and “more or less than” mean that an estimate will give you enough information to answer the problem.

Ted biked 14 mi on Monday, 11 mi on Tuesday, and 15 mi on Wednesday. Tom averaged 12 mi per day over the same three days. Did Tom bike a longer or shorter distance than Ted?

**Read and Understand**

**Step 1:** What do you know?

The four distances are 14, 11, 15, and 12.

**Step 2:** What are you trying to find?

The problem asks who biked the longer distance. You don't have to add Ted's miles to see that he biked a longer distance. An estimate is all that is needed.

**Exact Answers**

If the problem asks “what is the total” or “how many” or “how much,” calculate the exact amount.

A room is  $12\frac{1}{2}$  ft wide and  $14\frac{1}{3}$  ft long.

What is the area of the room in square feet?

**Read and Understand**

**Step 1:** What do you know?

A room is  $12\frac{1}{2}$  ft wide and  $14\frac{1}{3}$  ft long.

**Step 2:** What are you trying to find?

The problem asks for the area of the room. You need an exact answer.

Tell whether an exact answer or an estimate is needed. Then solve.

1. Shelly's class made a quilt. The materials cost \$65.75. They sold raffle tickets for the quilt and collected \$128.00. How much profit did they make after they paid for the materials?

2. The school garden is divided into 4 different sections.  $\frac{1}{6}$  of the garden is roses,  $\frac{1}{4}$  of the garden is tomatoes,  $\frac{1}{12}$  of the garden is lilies, and  $\frac{1}{2}$  of the garden is peas. Are there more flowers or vegetables in the garden?

3. **Reasonableness** Maura has to contribute 10 hr to a service project to receive a special award. She has already put in 4 hr. She claims that if she can work on the project for  $\frac{3}{4}$  hr each week she will meet her goal in 7 weeks. Is she correct?